

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

No claims are requested to be cancelled. No claims are currently being amended. Claims 27-30 are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Rejection of Claim 6-11 over U.S. Patent 5,701,666 to DeHaven et al. and U.S. Patent 5,977,785 to Burward-Hoy.

The PTO has rejected claims 6-11 as being unpatentable over DeHaven et al. in view of Burward-Hoy. For at least the following reasons, these rejections are traversed.

In regard to claim 6, the PTO has asserted that it “would have been obvious to have adapted the heat exchanger assembly of Burward-Hoy to the apparatus of DeHaven et al. because one would realize that such an assembly would result in a more accurate and faster control of temperature.” The Applicants respectfully disagree. DeHaven et al. teaches the use of heating and cooling elements 80 and 82 mounted on fixtures 90 and 92 to effectively heat or cool portions of a product wafer, as shown in Fig. 6 of DeHaven et al. These heating elements are small enough to allow four assemblies to be mounted on the fixtures, as seen in Fig. 7 of DeHaven et al. Burward-Hoy, on the other hand, shows a larger and cumbersome heat exchanger assembly used in testing one device under test (DUT), as seen in Figs. 2A-2B of Burward-Hoy. One of ordinary skill in the art would not be motivated to replace a simple, smaller design that can be mounted repeatedly on a fixture with a more cumbersome design that is limited to one on a fixture. Thus, it would not be obvious for one to modify the more convenient heating/cooling assemblies of DeHaven et al. to the more cumbersome heat exchanger assembly of Burward-Hoy.

Also, even assuming, *arguendo*, that it would have been obvious to use the heat exchanger assembly of Burward-Hoy in the apparatus of DeHaven, both references fail to

teach or suggest a plurality of active temperature control devices for regulating the temperature of at least one DUT, as recited in claim 6. In particular, the size of the heat exchanger apparatus, as seen in Figs. 2A-2B of Burward-Hoy, precludes the concept of mounting more than one active temperature control device on a single fixture, as depicted on Fig. 7 of DeHaven et al.

The proposed combination of DeHaven et al. and Burward-Hoy also fails to disclose or suggest a coolant flow control system coupled to the active temperature control devices and configured to individually regulate the flow rate of coolant through each fluid-cooled heat sink, as further recited in claim 6. Burward-Hoy discloses a coolant flow control system coupled to a single heat exchanger in which the control circuit 156 reads the signal from the temperature sensor 160 and adjusts the flow rate of the fluids to the single heat exchanger, (see Fig. 3 and col. 4, lines 7-23 of Burward-Hoy). Burward-Hoy, however, does not disclose or suggest a coolant flow control system coupled to a plurality of temperature control devices or a coolant flow control system that individually regulates the flow rate of coolant through each fluid-cooled heat sink. DeHaven et al. clearly fails to cure this deficiency of Burward-Hoy because DeHaven et al. does not disclose or suggest any coolant flow control system.

The PTO's proposed combination merely includes a plurality of coolant flow control systems for each heat exchanger and does not include a single control system coupled to each heat exchanger and individually regulating coolant flow rate through each of the plurality of heat exchangers. Therefore, even if combinable, claim 6 is patentably distinguishable from the combination of Burward-Hoy and DeHaven et al..

Claims 7-11 are also patentably distinguishable from the combination of Burward-Hoy and DeHaven et al. by virtue of their dependence from claim 6, as well as their additional recitations. Also, it is noted that, in regards to claim 7-9 and 11, the PTO merely asserts that the limitations of these claims are inherent in combination. However, the PTO failed to provide a rational or evidence tending to show inherency. "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the

missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) Because the PTO failed to provide evidence that the limitations are necessarily present in the combination, reconsideration and withdrawal of the rejection is respectfully requested.

Therefore, for these reasons, reconsideration and withdrawal of the rejection of claims 6-11 is respectfully requested.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of

papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R.
§1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 1 / 11 / 06

By  Reg. No. 43,258

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 945-6014
Facsimile: (202) 672-5399

by George C. Beck
Attorney for Applicant
Registration No. 38,072